

TILT UP AND PRE-CAST CONCRETE

PURPOSE AND SCOPE

The intent of this document is to eliminate or minimise the risks of fatalities, injuries and incidents arising from Tilt-up and Precast activities at Gamuda Australia (GA) projects / workplaces.

CRITICAL CONTROLS

- A certified design for tilt-up and precast concrete works has been prepared by a qualified engineer
- Test results for the concrete tilt-up and precast elements are available
- A documented erection sequence and methodology is in place prior to commencing work
- Changes to precast and propping designs are approved by the designer prior to commencing work
- Personnel involved in tilt-up and precast concrete works are trained and competent (licensed where applicable)
- An approved method for the installation and removal of support propping is in place prior to commencing work
- A certified compatible lifting clutch and/or device is in use for lifting purposes
- Method for removal of temporary bracing is effectively planned and managed in a systematic way
- Exclusion zones are in place during erection
- A SWMS must be in place for work involving tilt-up and precast concrete

Note: The above controls are to be read in conjunction with the Regulations, Standards and Codes listed below.

ERECTION SEQUENCE AND METHODOLOGY

The documented erection sequence and methodology which is prepared by the engineer should cover every aspect of the erection process, including but not limited the following:

- Transportation, unpacking and/or panel removal, safe access, and egress on trucks
- Erection sequence, lifting points and panel placement / orientation of the concrete elements
- Configuration and bracing details including type, size and angle (designed and certified by an engineer) requirements for erection brace footings (and prop footings if required), anchorage, brace fixings and concrete strength of the brace footings (including slabs) at the time of erection (by an engineer) or sequencing for underground tunnel segment linings (by an engineer)
- Levelling shims details for erection, and the requirements for grouting, specified by an engineer
- Regular inspection requirements for panels, lifting points and bracing prior to, during and after installation
- Information, training, and instruction relating to hazards, risks and controls must be provided to persons carrying out or supervising tilt-up or precast concrete work.

REGULATIONS, STANDARDS AND CODES

- Work Health & Safety Regulation 2011 (QLD, ACT), 2012 (SA), 2017 (NSW, NT) and 2022 (WA); Part 3.1 (regs 32-38), Division 3.2.1 (reg39), Division 6.3.2 (regs 299-303)
- Occupational Health and Safety Regulations 2017 (VIC); Part 3.5, Plant
- AS/NZS 3850 –Tilt-up concrete construction
- National Code of Practice for Precast Tilt-Up and Concrete Elements in Building Construction
- Industry Code of Practice – Standard Precast & Tilt-up Concrete for Buildings (VIC)
- Code of Practice – Tilt-up and Pre-cast Construction Code of Practice (QLD)

FORMS AND CHECKLISTS

- No GA related forms or checklists for GA-CRS-14 Tilt Up and Pre-Cast Concrete